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A

SHORT TREATISE

ON THE

EXTERNAL CHARACTERS, NATURE, AND TREATMENT,

OF THE DIFFERENT

FORMS OF PORRIGO,

OR

SCALLED HEAD AND RINGWORM.

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THE FOLLOWING PAGES

ARE VERY RESPECTFULLY INSCRIBED

BY

THE AUTHOR.

PREFACE.

THOSE eruptions appearing on the scalp, treated of in the following pages, are of very frequent occurrence; and taken together, they constitute perhaps the most important group in the whole range of cutaneous pathology. In selecting them as subjects for a few observations, we have been actuated by a desire of throwing some light upon them, hoping thereby to rescue them from that almost hopeless confusion into which they have been thrown by the conflicting descriptions of preceding writers. Some may think that I am not warranted in speaking thus censoriously of my predecessors; but, those who have paid much attention to dermatology, must be sensible that, as respects the diseases, the elucidation of which we have attempted, much confusion prevails. Much of this confusion, we are persuaded, has resulted from an improper, and often capricious, use of terms. The discrepancy of nomenclature in the writings of British and French dermatologists is a source of much perplexity to students,—of this, however, we will have to speak elsewhere.

We have divided the eruptions commonly described under the term Porrigo, into two kinds—the true and the spurious:—or rather, we have restricted the term Porrigo to certain diseases of the skin; and have referred the spurious porriginous eruptions to the term Impetigo, and these we have briefly described as the Impetigo larvalis and Impetigo favosa.

We have attempted in the following pages to establish the pathology of the true porriginous eruptions; and we think that we have succeeded in localizing them in two different constituent elements of the skin:—1st. The sebaceous glands—2d. The organs secreting and protecting the hair. If we have succeeded in the attempt,—if, moreover, we have proved that Porrigo scutulata and P. furfurans constitute, strictly speaking, one disease, and that it is to this disease the popular, but hitherto very indefinite, and much-abused term, " Ringworm," is legitimately referrible, we shall have laboured to some purpose, and smoothed a hitherto rugged and bewildering passage to an acquaintance with an important and frequently occurring group of eruptions. As respects myself, I can aver it was long before I could profit by works treating of the eruptions of the scalp—so conflicting and discrepant were the descriptions of diseases *nominally* the same. I know that this discrepancy in books has been but too obvious and bewildering to others, as well as myself. I, therefore, flatter myself that the result of my labours, humble as they are, will be to simplify materially the study of the eruptions appearing on the scalp.

With these prefatory remarks, the author respectfully submits the following pages to the reader.

> ....Si quid novisti rectius istis
> Candidus imperti; si non, his utere mecum.

CHAPTER I.

OF THE TERMS TINEA AND PORRIGO, AND OF THE ERUPTIONS REFERRIBLE TO PORRIGO.

THERE are some writers, and amongst them the Baron Alibert, who wish to have the names of cutaneous diseases descriptive of one or more of the prominent characters or symptoms of these diseases; in other words, to have the sign significant of the thing signified. But the diseases of the skin are so numerous, and many of them differ so little from one another, that we cannot anticipate much success for such a proposal. Here, as in other departments of science, we are inclined to think that attempts at descriptive terminology will generally prove unsuccessful, and tend perhaps to retard, rather than to advance, the progress of knowledge. In dermatology, what is especially necessary is uniformity in the use of terms; no matter whether these terms be arbitrary, or not descriptive of any prominent characters of the diseases to which they are given.

The indeterminate manner in which the names of cutaneous diseases have been used, has, unquestionably, tended greatly to impede the progress of cutaneous pathology; and hence, we ought at present to be anxious to fix the acceptation of terms already in use—to establish, by careful observation and faithful description, the diseases to which each of these terms ought to be restricted, rather than to be coining new terms. By and by, as our knowledge of skin diseases increases, it will perhaps be requisite to reform and simplify the cutaneous nomenclature, and we hope the time is not very distant, when we shall be enabled to construct a nomenclature of these diseases, taking from their seat, or the organs in which they originate, generic terms, and particularising the subordinate varieties by appropriate epithets. But till once we are enabled thus effectually to reform the nomenclature and arrangement of skin diseases, let us adhere to the terms hitherto in use, and labour to be unanimous as to the number, external characters, and *seats* of the morbid appearances of the cutaneous tissue.

Porrigo and Tinea capitis are terms used synonymously by writers; but the acceptation of either is not yet very definite, nor is their derivation calculated to lead us to bestow either term on any particular group of eruptions. The term Tinea came into use some time before the revival of letters, and was bestowed by writers on several eruptions of the scalp, bearing more or less resemblance to one another. Lorry thinks it is a corruption of the Arabic word *alvathim*, by which Avicenna designated the humour which he supposed produced porriginous affections. "A quo nomine (alvathim) barbari, ut videtur, thim et thineum et tineam fecerunt."* Another, and I think, a more plausible opinion, respecting the origin of the term Tinea, is that of Mercurialis, who supposed, that it was bestowed on certain eruptions of the scalp, from some fancied resemblance which they bore to the ravages of moths, or tineæ, on certain substances. But it seems as probable that erroneous pathological views gave rise to the term in question, and that it originated from a belief in certain minute insects, or tineæ, being the proximate cause of the eruptions to which it was given, rather than from their resemblance to the ravages of moth-worms. Indeed, we find a writer not only broaching this view of porriginous eruptions, but actually describing the appearance of the insects which he supposed were the cause of them. "Sennertus," says Turner, "hath often seen them, and been consulted by way of prescription to destroy them."* What Sennertus took for insects was probably neither more nor less than *nits*, as they are vulgarly called, or the remains of the ova of pediculi—a mistake which, we suspect, has lately been committed by Dr Quain, who describes, what we take to have been, either nits or a little hardened sebaceous matter on some of the hairs, as a very remarkable circumstance in Porrigo decalvans.—*Vide Martinet's Pathology, by Quain.*

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* Lorry de Morbis Cutaneis, p. 463.

Since the promulgation of Willan's classical nomenclature of eruptive diseases, the term Tinea has been but seldom used in this country. Willan rejected it as a word not sanctioned by ancient usage, and adopted its synonym, Porrigo; which, as Bateman remarks, he uses nearly in the same sense in which it was used by Celsus, who bestowed it on the moist and ulcerating, as well as the furfuraceous, eruptions of the scalp.

Considerable difference is still to be met with in books, respecting the number of species that ought to be ranked under the generic term Porrigo. That a culpable laxity of diagnosis leads many to range eruptions under that term, which, strictly speaking, are not at all entitled to it, every one who has seen any thing of cutaneous practice will readily admit. By several practitioners and different writers, almost every eruption which attacks the scalp is indiscriminately classed as a porriginous true disease. Willan himself is, to a certain extent, chargeable with this error. The eruptions which he has arranged under the generic term Porrigo, are very dissimilar in their nature, and external appearance. While some of them, such as those eruptions so common in young children, and known by the name of porrigo larvalis, crusta lactea, or milk scall, are generally of a absurd salutary tendency, and may be considered as efforts of the system to obviate more serious diseases; others are more strictly local in their origin, and, in place of being salutary, harass the patients during a long period, bidding no defiance too often to the best-directed efforts for their cure; and when cured, not unfrequently leaving behind them permanent deformity, in the shape of incurable alopecia, or baldness, to a greater or less extent.

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* Turner, de Morb. Cut. p. 136.

In place, then, of keeping diseases so dissimilar in their nature in the same genus, it would be better, I think, to draw a line of distinction between them, and refer them to different genera, as we may be warranted in doing. That the porrigo larvalis and porrigo favosa of Willan are diseases very different from the other forms of porrigo described by the same author, and infinitely less rebellious in general to remedial treatment, few, who have paid particular attention to eruptive diseases, will deny: and that the two forms of eruption just specified would be more correctly placed in the genus Impetigo, than in that of Porrigo, is an opinion which is now beginning to be pretty generally admitted.

Bateman, who adopted Willan's arrangement and nomenclature of porriginous diseases in deference to his illustrious preceptor, and in order to avoid the confusion of altered arrangement, nevertheless observes, "That experience has led me to question altogether the propriety with which Dr Willan classed the crusta lactea under the genus porrigo, and to believe that impetigo larvalis would have been the more correct appellation." The porrigo favosa of Willan seems likewise to be a variety merely of impetigo affecting the scalp. The pustules which it exhibits, are psydracia, and the discharge which they pour out when ruptured, is very similar to that furnished by the other forms of impetigo. Dr Burns, whose opinion is entitled to great deference, observes; " That porrigo favosa is a mere variety of porrigo larvalis," or, as it ought rather to be called, impetigo larvalis, " differing in nothing except in the pustules being a little larger."—*Burns' Midwifery, p.* 595. Referring, then, these two eruptions to the genus Impetigo, we have remaining, Porrigo furfurans—P. lupinosa—P. scutulata—P. decalvans: four forms of cutaneous lesion alone entitled to be ranked as true porriginous affections.

In Alibert's new classification, his group of porriginous diseases ("dermatoses teigneuses") consists of three genera.

Genre.	Espèces.
1. *Achore*, . . .	Lactumineux, Muqueux.
2. *Porrigine*, . .	Furfuracée, Amiantacée, Granulée, Tonsurante.
3. *Favus*, . . .	Vulgaire, Scutiforme.

However ingeniously Alibert may argue in favour of ranking the above-mentioned eruptions together—however acute he may be in seeing the affinities which they possess, and which entitle them, in his estimation, to form together "one natural group"—we can see no reason for his referring the genus achor, and porrigo granulata, to the "dermatoses teigneuses," rather than to the "dermatoses eczemateuses," except that they, like the true porriginous eruptions, appear ordinarily on the scalp. The region of the body, then, on which they appear, seems to us to be the bond of union between Alibert's dermatoses teigneuses. He, however, observes: "Les diverses teignes ont des phénomènes communs, qui considerés d'une manière générale doivent les rattacher au même groupe dans la grande famille des dermatoses; tels sont l'irritation plus ou moins vive de cuir chevelu, son etat hyperhemique, le prurit, une sorte de douleur tensive, et plus ou moins prononcée, selon quelles pénétrent plus avant dans l'épaisseur du derme."*

We, nevertheless, are of opinion, that Alibert has approximated eruptions which have really no great claim to be ranked together; and in place of simplifying, he has rendered more intricate, the study of porriginous eruptions, by his confused arrangement, and the introduction of new terms.

M. Biett is of opinion, that the species belonging to the genus porrigo may be reduced to two—the porrigo lupinosa and P. scutulata. In this opinion he comes pretty near Lorry, who affirms that the only disease entitled to the term tinea is the disease known at present by the name of porrigo lupinosa.† Biett, Rayer, and others, maintain that the eruption denominated porrigo furfurans is not referrible to porrigo, being always, as they assert, either eczema attacking the scalp or pityriasis.

They are wrong.

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* Monographie des Dermatoses, tom. i. p. 426.

† The eruption described by Lorry, under the term Porrigo, corresponds, as we shall afterwards show, to our furfuraceous porrigo, or true ringworm of the scalp. Frank likewise uses Porrigo in the same restricted sense as Lorry did.—*Vide Prax. Medicæ Universæ Præcept. De Morbis cutis.*

That eczema is often mistaken for a porriginous affection, we very readily admit; but we are at the same time firmly persuaded, that the above-named pathologists have committed a great, and to us incomprehensible mistake, in denying the existence of Willan's furfuraceous porrigo. It is the form of porrigo most commonly met with in this country, and it is in general exceedingly difficult of cure. We would hence have supposed, that it would have forced itself upon the attention of the most careless observer. From its spreading through families into which it has been introduced, and from being occasionally produced by the other forms of porrigo, ? we are surely warranted in ranking it as a porriginous affection. *It is to this disease that the popular term Ringworm is most frequently given.*

We are quite aware that it is the P. scutulata of Willan that is deemed, by the majority of medical practitioners, "Ringworm." We shall afterwards prove, however, that P. scutulata and P. furfurans are merely varieties of one and the same disease—both varieties being referrible to the term Ringworm—a disease which is beheld with much alarm and regret by well-informed parents, when it appears within the family circle. We shall afterwards state our reasons for thinking that P. scutulata is a term which might, with every propriety, be expunged from the cutaneous nomenclature.

We admit, contrary to the opinion of Willan and Bateman, that the elementary form of furfuraceous true porrigo, or ringworm, is not pustular; and hence objections may be most justly started against placing it in the genus porrigo. Yet notwithstanding the apparent inconsistency of classing a non-pustular eruption with others of a pustular character, it is proper, I think, considering its affinity to the other forms of porrigo, to suffer it to remain where Willan and Bateman have placed it.

Plenck, from observing that the different species of porrigo appeared with different elementary lesions, was led to rank them in no less than three different orders, viz. Squamæ—Crustæ—Morbi Pilorum. Thus, in his little work, entitled, "Doctrina de Morbis Cutaneis," we find several eruptions of the scalp, under the terms tinea, and scabies capitis, amongst the crustæ. We find nearly the same diseases, under the term porrigo, amongst the squamæ. Lastly, porrigo decalvans, or, as Plenck calls it, alopecia areata, is met with amongst the morbi pilorum. Admitting, as we must, that there is a difference in the elementary appearances of the several eruptions included under the term porrigo; it is, nevertheless, we think, an unnatural and unnecessary proceeding to separate, so widely as Plenck has done, diseases in other respects having many points of resemblance. Such a proceeding would prove highly disadvantageous.

Taking contagion, difficulty of cure, and alteration of the appearance of the hair, as the most striking features of the genus Porrigo, we may place in it, without reference to their elementary forms, the P. lupinosa, the P. scutulata, the P. furfurans, and the P. decalvans.

By observation and reflection we have been led to believe, that the organs primarily affected in Porrigo are the sebaceous glands and structure secreting the hair. The connexion between these two structures is so intimate, that they must act, and re-act, upon each other. From this consideration some light is thrown upon the symptoms of the disease in question. In porrigo lupinosa, for example, the sebaceous follicles are the organs primarily affected, and from the intimate connection between these organs, and the structure producing the hair, the latter is very apt to suffer. It is from this communication of disease from the one structure to the other, that the hair so generally, and so speedily, becomes altered in appear-

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ance in this form of porrigo; and the incurable alopecia, which it not unfrequently causes, results from the disease destroying both the follicles and structure secreting the hair. Again, in Porrigo furfurans (true ringworm) the disease originates in the structure producing the hair, and from the reverse of what occurs in P. lupinosa, the sebaceous follicles may become secondarily affected, and produce an irregular pustular crop scattered over the furfuraceous patches.

It is not long since Alibert remarked, " Que-trouve-t-on dans les auteurs touchant la nature, et le caractère spécifique des teignes? Des renseignemens incertains, des dissertations vaines, des détails vagues."* Since then some important light has been thrown on some of these very interesting forms of cutaneous disease. Some points, however, yet remain for further investigation.

In the preceding remarks we have endeavoured to establish the forms of disease strictly referrible to the genus Porrigo—a task by no means so unimportant as some may be inclined to think.

Respecting the number and specific names of the eruptions referrible to the genus Porrigo, much difference of opinion is observable in the writings of French and British dermatologists; and a considerable step in the progress of improvement will have been made, when uniformity on these topics is manifested by the profession at large, in this, and other countries.

In admitting the existence of four forms of porriginous disease, we beg to remark, *that we believe these four species originate in but two different structures, or sets of organs; so that we are inclined to think, that porriginous eruptions might be reduced to two, viz. porrigo originating in the sebaceous glands, and porrigo ori-*

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* Dict. des Sciences Méd. tom. 54.

ginating in the structure producing the hair. These opinions may be premature or incorrect; let observation confirm or confute them.

CHAPTER II.

OF THE ANATOMY OF THE ORGANS IN WHICH IT IS BELIEVED PORRIGO ORIGINATES.

> " Dans l'appréciation des phénomènes que présentent les maladies, il faut toujours faire entrer en ligne de compte la structure particulière de l'organe malade.—*Alard, Nat. et Sieye des Mal.* tom. ii. p. 287.

THERE is nothing, as a writer justly observes, which affords so fair promise of improvement in the management of cutaneous diseases, as a due regard to the anatomy, and different functions, of the skin. Before, therefore, proceeding to the consideration of the different forms of porrigo, we deem it right to premise a short account of the anatomy of the hair and sebaceous follicles, as these, in our opinion, are the parts primarily affected in the disease just alluded to.

Breschet and Vauzeme, who may be said to be the first to have successfully examined the intimate structure of the skin, have not yet bestowed particular attention upon the sebaceous follicles and hair, so that we can derive no assistance from these laborious and precise investigators. Much that is said of the organs in question in books, is neither very satisfactory, nor correct. We think, in place of making personal observations, the authors of anatomical systems, when treating of the skin, too often blindly borrow from their predecessors,

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and take for granted, and describe, what they have neither seen, nor taken the trouble to look for. The following short description of the hair and sebaceous follicles is drawn up from notes of some observations which we have recently made on the human skin, and skins of some of the lower animals, chiefly of the cow and sheep. Brief as it is, I trust it will be sufficient for my present purpose. The constituent parts of the skin, we may be allowed to remark, are so minute, so difficult of examination, and therefore so liable to be misrepresented, that much caution and candour are requisite in their examination. With this conviction we have pursued our investigations, and have not advanced any thing, of the accuracy of which we were not perfectly assured. Nevertheless, some of our statements may prove to be inaccurate; if so, we shall feel obliged by being corrected, as we write not for novelty, but from a desire of adding our mite to the general stock of knowledge, and of advancing the interesting, but too much neglected, study of dermatology.

ANATOMY OF THE HAIR.

That part of the hair enclosed within the skin, is the part the exact anatomical relations of which it is most important to know. This part, in the scalp at least, generally presents the shape of the letter *J*—the dermal extremity of the hair being very slightly bent upon itself. The origin of the hair is in the subcutaneous tissue, and generally presents the appearance of a small, blackish body, of a roundish form. This body lies at the bottom of a piliferous cyst, and minute colourless filaments, apparently vessels, may be seen entering it. The dermal extremity of the hair, which is hollow for a little way, and softish, almost pulpy, is implanted on the roundish body just described—the *monticule* of Duvernay, as it has been called—the hollow corneous part of the hair forming a kind of sheath round the monticule. The connexion between these two parts is not very strong, as the hair may, almost invariably, with a little dexterity, be plucked out, without bringing along with it the monticule.

Each hair is enveloped in two sacs. The inner one is very delicate, and closely applied to the hair, especially a little below what is called its neck. The outer sac is thicker and stronger than the former. The two are but slightly connected, and are easily separated from one another. Morbid action in either of them, especially when producing effusion of fluid, would very likely intercept the nutriment of the hair, and cause it to fall out, or separate from its attachments.

In what way hair is produced has not yet been determined. It is not yet ascertained, I believe, whether the inner piliferous cyst is immediately concerned in its production, or whether the monticule secretes both the corneous substance of the hair and its colouring matter. That the monticule is principally concerned in the production of hair, is evident from the fact, that no hair is ever generated after its destruction. But it seems probable to us that two different structures are concerned in the production of an entire hair, as we sometimes see the hairs become blanched, while they remain otherwise natural, and continue to grow. This, we think, could scarcely happen, if the same organ produced both the corneous part of the hair and its colouring matter.

Some writers have asserted that the hair receives a covering from the cuticle. They suppose that that membrane passes down the piliferous cyst to its bottom, and is there reflected along the hair. Others have fancied that the hair, after rising to the level of the cuticle, pushes it before it, and thus, as it were, mechanically takes a covering from it. The fallacy of these views has been successfully exposed by Bichat.* The cuticle does not seem to be reflected at any part along the hair, but is more or less firmly attached to it at its exit from the skin, and passes only a little way down the inner piliferous sac. It is a curious fact that the cuticle, though permeated by myriads of hairs, sebaceous follicles, and sudoriferous canals, does not, when separated from the corium, present a sieve-like appearance, as might have been expected. Various explanations have been given of this phenomenon: the most satisfactory seems to be Mr Cruikshank's, who ascribed the disappearance of the pores in the detached cuticle to the elasticity of the membrane.†

Hair, when seen through a powerful microscope, presents the same appearance as the cuticle; and analysis has proved that the chemical components of these two structures are nearly the same. It is highly probable, we think, that hair is formed, like the cuticle, by two different sets of organs; one set secreting the corneous substance; the other, the colouring matter. Some authors, and amongst these Bichat, have supposed that hair possesses a certain degree of vitality; and as confirmatory of this opinion, they adduce the phenomena of *Plica Polonica*. This view, however, seems to be erroneous; and the phenomena of *Plica* can be satisfactorily

Breschet's stuff.

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* Anat. Générale, tom. iv. Système Pileux.

† According to Breschet, the sudoriferous canals, which are of a spiral form, pass through the cuticle obliquely; they are torn, and their fragments attached to the cuticle shrivel up, when that membrane is detached from the corion. In this way, M. B. satisfactorily accounts for the disappearance of the sudoriferous pores.

accounted for, by referring the seat of the disease to the piliferous bulbs and cysts.

ANATOMY OF THE SEBACEOUS FOLLICLES.

The sebaceous follicles are organs familiarly talked of, but their true structure, I suspect, is but imperfectly known. They are easily seen in the cow's skin; and we may be allowed to state a few particulars respecting their appearance in that animal, before describing those of the human skin. In the cow they are of a yellowish colour, and bear a striking resemblance to the Meibomian glands, with this difference, that they are much smaller, and their central canal or duct is not a shut sac, but is continuous with the piliferous cyst. Each piliferous cyst may be said to be surrounded at its summit by one of these follicles, the follicle being on the outside of the double pilous sac. Such is the usual appearance of the sebaceous glands in the cow's skin. But there is a peculiarity at the roots of some of the hairs worthy of notice. Interspersed amongst the shorter hair, there are many longer and stronger ones. The roots of these latter hairs are enveloped by two cysts—an outer one, very thick, and of a fibrous texture; and an inner one, of a delicate diaphanous structure. Between these two cysts an erectile or vascular tissue is situated, which throws out a drop or two of blood when cut into. The sebaceous follicles belonging to these coarser hairs are considerably smaller than those round the finer hairs; and in place of lying outside of the pilous cysts, are situated between the fibrous and inner cysts, being attached principally to the former.

The sebaceous follicles of the human skin are smaller, less complex apparently in their structure, and consequently more difficult of examination than those of the cow; but their relative situation is the same. They are best seen at the roots of the ciliæ, or eye-lashes, elsewhere they are smaller, but essentially the same in structure. On the nose, where their orifices are usually pretty perceptible, especially in males, we see delicate or rudimentary hairs passing out from many of the orifices, and frequently by pressure we may force a little sebaceous matter along the hairs, or out by their sides; satisfactorily enough establishing that the hairs pass through the centres of the follicles, and that the pilous cysts and sebaceous follicles have a common outlet.*

Mr Chevalier states, in his Lectures, delivered some years ago before the College of Surgeons, London, that there are two sets of sebaceous glands in the human skin:—1st, a superficial set, "between the second epidermis and the cuticle, to which they appear very firmly attached;"—2d, "a deeper set embedded in the corium, and which are commonly known as the sebaceous glands." This *discovery* of Mr Chevalier has not, we believe, been confirmed by any subsequent anatomist.

We learn from Alibert,† that Eichhorn, from having observed that "*tannes*," *puncta sebacea*, or grubs, escape from the apertures which give exit to the hairs, denies the existence of sebaceous glands, and supposes that the function commonly ascribed to these organs is performed by the piliferous cysts. After what has been said above, we need say nothing in refutation of this opinion.

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* The sebaceous follicles, we believe, produce that peculiar, transitory appearance of the skin, denominated *cutis anserina*. Some have thought that it resulted from the bulbs of the hair, but we do not see how these, seated as they are beneath the cutis, could give rise to the appearance in question.

† Monographie des Dermatoses. tom. ii. p. 68.

The sebaceous glands lubricate the hairs, and soften the skin, by their secretion; and they may, perhaps, be subservient to more important purposes in the animal economy than physiologists are at present aware of.

ACHORES AND FAVI.

Before proceeding to a particular description of the different forms of Porrigo, it may be proper to make a remark or two upon the terms Achores and Favi, which designate two varieties of pustules, frequently mentioned by authors when describing the eruptions of the scalp.

The latter, (Favi,) as described by Willan, differ in no respect from the psydracia; but the Achores appear to be a distinct species, and are, therefore, entitled to special notice.

An English student, who is familiar only with Willan's nomenclature, is apt to be perplexed by finding the terms Favi and Achores used in a different sense by French writers. The pustules characteristic of P. lupinosa, are called by Willan and Bateman, Achores; while by the French dermatologists they are styled Favi; and hence, P. lupinosa is called, by the French, P. favosa, or teigne faveuse—a disease very different from the P. favosa of Willan. The French, however, are entitled to the credit of having described the pustules in question more minutely and accurately than either Willan or Bateman, and had they retained Willan's term, they would have prevented the confusion to which they have given rise, by using a different appellation.

The achores of Alibert, Biett, and others, are nearly synonymous with the favi of Willan.

It is well-known that Dr Willan borrowed the above terms from the ancients, and if ancient usage can go for any thing in such matters, he certainly used them in their proper sense, the achores being anciently reckoned the smaller, the favi the larger, species of pustules.

In the article "Achor," in the Cyclop. of Pract. Med. no notice is taken of the discrepancy exhibited in the use of the above terms; and as we ourselves were, for a time, somewhat puzzled by this discrepancy, the above remarks may perhaps prove serviceable to others under similar circumstances.

CHAPTER III.

OF THE FORMS OF PORIGO ORIGINATING IN THE SEBACEOUS GLANDS; INCLUDING P. LUPINOSA AND P. LUPINOSA CONFERTA.

1.—*Porrigo Lupinosa.*

THIS variety of Porrigo is well named, from the peculiar form which its characteristic scabs present. Indeed, in the whole catalogue of skin diseases, there is not, perhaps, one more happily named, as its scabs bear a striking resemblance to lupine seeds:—hence the epithet lupinosa. M. Baudelocque believes that these cup-shaped scabs are not the products of pustules, but of a morbid secretion from the piliferous cysts. M. Mahon, whose opportunities of observing the disease have been very numerous, also denies their pustular origin. "Des observations attentives et mille fois repetées ne me permet-

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tent pas de regarder la teigne faveuse ('Porrigo lupinosa') comme une eruption pustuleuse."*

M. Mahon has been led to believe that the disease originates in the sebaceous glands, and that the cup-shaped scabs which it presents result from the indurated secretion thrown out from these organs. We are inclined to take the same view of the disease; and we have a preparation in our possession which we think establishes it. The phenomena of the disease, we will venture to affirm, are more satisfactorily accounted for by this view of its pathology, than by any other.

Porrigo lupinosa, when seen at its very commencement, presents small yellowish points, depressed in their centres. These achores, or, as the French call them, *favi*, are almost invariably traversed by hairs. Their contents, moreover, almost from their very commencement, are concrete. They enlarge slowly, seldom exceeding three or four lines in diameter, although they are sometimes as large as a sixpence. During their development, the cuticle covering them cracks, and partially falls off. They are firmly imbedded in the skin, and when fully formed still retain the circular form, raised at the edges, and cupped. These peculiar scabs are usually of a light yellow colour, and when of old standing, a powdery substance is seen lying in their central depressions.† They arise usually distinct from one another, but during the progress of the disease they

how can a
point have a
centre.

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* Recherches sur les Teignes, p. 6.

† The scabs, according to the analysis of Thenard and Chevillot, consist of—

Phosphate of Lime, ...	5
Gelatin, ...	17
Albumen.	70
Water, ...	3
Loss, ...	5
	100

sometimes run together, forming one or more large, elevated, indented scabs. The skin between the scabs seldom appears reddened, but very frequently presents a furfuraceous appearance. ? The hair very generally becomes lighter coloured, and brittle on the affected parts, and either falls off spontaneously, or may be removed with facility, and without causing pain. no

When the scabs are removed by means of poultices, the parts upon which they lay appear raw and excoriated, and depressed; a viscid fluid is speedily thrown out, which concretes into scabs, irregular in their form, and altogether different from the primary ones.

Sometimes the scalp becomes deeply ulcerated, even so as to expose the cranial bones; and a most abominable smell is exhaled from the scabs, in those cases where cleanliness is not observed. in very neglected cases only - Pediculi are likewise generated in great abundance. The cervical glands not unfrequently become enlarged and painful; and in neglected cases, the system occasionally suffers so much, that the body is stunted in its growth, the development of the intellectual faculties is retarded, and a state of cachexia induced which sometimes terminates in death. no. no. no.

Porrigo lupinosa is not confined to the scalp, but may appear on any part of the body. Alibert mentions a case where the eruption was diffused over the whole body, the scabs on the trunk and extremities presenting the same cupped appearance as those on the head.

From each of the pustules in P. lupinosa being permeated by a hair, Mr Plumbe and others have been led to believe that the hairs play an important part in the production of the pustules. We believe that the hairs, when separated from their attachments, and lying loose in the skin, may give rise to a degree of irritation; but we cannot see how their presence can be so injurious as Mr Plumbe supposes. The production of pustules in

P. lupinosa is quite independent of the hairs. Duncan, Underwood, and Luxmore, have asserted that the disease originates in the bulbs of the hairs. This opinion, we think, has been successfully combated by Murray, who found these organs at the commencement, as also sometimes during the progress of the disease, in a healthy state. Murray remarks, "potiorem sedem mali in folliculis dictis pinguedinosis, vel ipso textu celluloso, quærendam arbitror."

M. Baudelocque, who denies the existence of sebaceous follicles in the scalp, places the origin of the disease in the pilous cysts. "This opinion," says he, "I have deduced from the disease most frequently attacking those parts which are most plentifully supplied with hair; from the non-existence of sebaceous follicles in the scalp, as Bichat, Meckel, and others, affirm; and from one or more hairs almost constantly traversing the *favous* scabs."*

The opinion respecting the seat of P. lupinosa, which we have already stated as the one we are inclined to adopt, could not be entertained, were it true that the scalp contains no sebaceous glands. But, if we are not much mistaken, we ourselves have seen these organs in the scalp, and are, therefore, convinced of their existence. They are placed, as we observed above, at the exit of the hairs from the skin, and surround the summits of the pilous cysts. Their ducts give exit to the hairs, and communicate inferiorly with the pilous cysts.

The preparation to which we above alluded, as confirmatory of the opinion of the disease being seated primarily in the sebaceous follicles, consists of a small portion of the scalp, inclosing an incipient lupine-like scab, taken from a subject who died of fever, and who had, for a considerable period before death, been affected with P. lupinosa. The scab is seen to be still covered by the cuticle: inferiorly, it appears to be inclosed in a membrane, and a hair enveloped in its double cyst, apparently in a healthy state, is seen passing through its centre. In short, the scab occupies exactly the situation of a sebaceous gland, and indeed appears to be merely a sebaceous gland distended by a concrete secretion. This view of the pathology of the disease appears to be confirmed by the fact, that when a lupine-like scab is removed, it is not succeeded by a similar one, but by one of an irregular form, without the peculiar cupped appearance. This arises, as we conceive, from the sebaceous follicle having been destroyed during the development of the primary scab.

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* Recherches sur la Teigne faveuse; Revue Médicale, t. iv. 1831.

From the intimate connection of the pilous cysts with the sebaceous glands, the former very generally become diseased when the latter organs are in a morbid state; and it is from this cause, we think, that the hairs become altered in appearance in P. lupinosa. Permanent baldness is not unfrequently occasioned by this disease, and it results, as we remarked before, from the total destruction of sebaceous glands, pilous cysts, and bulbs.

2.—*Porrigo Lupinosa Conferta.*

(Porrigo Scutulata of some authors.)

There is a variety of P. lupinosa, where the achores (favi, of the French) arise closely set together in patches of a circular shape, and ultimately become transformed into large, elevated scabs, irregular on their surface, but without the regularly circular indentations exhibited by the scabs of the former variety of the disease. It is the pressure which the achores mutually exert upon one another, when thus crowded together in clusters, that prevents them from individually presenting the cupped appearance which they present when arising distinct and separate from one another, as in the common P. lupinosa. Alibert describes this form of Porrigo under the name of Favus scutiforme; and correctly observes *that it is essentially the same as P. lupinosa.* It has also been described by some under the term P. scutulata, but in my opinion it is quite a distinct disease from the P. scutulata or ringworm of this country. For the sake of distinction, it might be called *P. lupinosa conferta.*

DIAGNOSIS OF PORRIGO LUPINOSA.

We may here quote, as apposite, the words of a talented writer when treating of a different subject:—"He is ever likely to be the most successful in his practice, who knows best how to form a true diagnosis. His discriminating eye seizes a number of minute yet important particulars, confounded or even entirely overlooked by careless and superficial observers, who are continually aspiring by some one general method to cure a variety of diseases, the specific differences of which they have never condescended to study."*

The eruptions with which the two forms of Porrigo lupinosa just described are apt to be confounded, are, Impetigo larvalis and Impetigo favosa, or granulata, (Teigne granulée of the French.) For the sake of some of our readers, it may perhaps be proper to give a brief description of these very common eruptions, in order that the points of difference between them and Porrigo lupinosa may be satisfactorily displayed.

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* Mackenzie on Diseases of the Lachrymal Organs, p. 10.

Impetigo Larvalis.

(Porrigo Larvalis of Willan.)

This eruption, which is described by obstetrical writers as the *crusta lactea,* or *milk scall,* is of frequent occurrence in young children, and often productive of much suffering to the little patients. It commonly appears in the forehead, with minute whitish or yellowish psydracious pustules set close together, with a good deal of surrounding redness, and troublesome itching. The pustules speedily break, and discharge a viscid fluid which gradually concretes into yellowish scabs. These scabs, as Dr Willan states, are, in some places, thick and rounded, though not very compact; in others, thin and laminated, and loose at the edges. If any of them be detached, the surface is presently covered by a new incrustation. The scab is alternately dry and humid. Sometimes, from a fresh eruption of the pustules, or from other circumstances, the discharge becomes on a sudden so profuse, that the surface of affected parts is laid bare, and remains in a raw state for several days, emitting a viscid and acrimonious fluid from innumerable pores. When the disease is about to terminate, the scab becomes dry, and sometimes whitish, and at length falls off, leaving the skin red, shining, and indented with deep lines, and the cuticle apt to crack.

The complaint is not confined to the forehead. It may begin on the scalp, cheeks, temples, chin, or about the ears. Wherever it commences, it usually extends over all the parts above-mentioned, in the course of two or three months, enveloping the face in a sort of scabby mask; hence the epithet larvalis. It not unfrequently extends along the neck to the breast, producing much distress in children of a full habit. The younger the child is, the more severe usually is the disease. Patches of the eruption occasionally appear on the extremities.

Ophthalmia not unfrequently appears during its continuance. It has been described by some oculists as the porriginous ophthalmia, and is supposed to arise from a little of the discharge of the eruption being applied, in some way or other, to the conjunctiva. I am not inclined, however, to subscribe to the correctness of this supposition. The ophthalmia results generally, we are convinced, from sympathy, rather than direct inoculation, if I may use the term. The parotids occasionally become swollen and painful; and in some rare cases the mesenteric glands become affected—diarrhœa supervenes, and the little patient dies hectic and tabid.

The duration of the disease is variable, but generally protracted. It may disappear in a month or two, or continue for two or three years. It sometimes terminates spontaneously, after weaning or cutting of the first teeth. When it is about to terminate it has been said that the urine acquires the smell of that of cats.*

Impetigo larvalis frequently appears in children without any evident cause; yet, in most instances, it appears as a consequence of dentition, repletion, or a disordered state of the bowels. Dr Underwood states, that he "never saw an infant much loaded with it, but it has always been healthy, and cut its teeth remarkably well." It may tend to ward off more serious complaints, and undoubtedly, it is occasionally of a salutary tendency. "There is ample reason," as Mr Plumbe justly remarks, "for the serious consideration of the influence of this affection on the constitution of the infant, with relation to the well-known disposition to determination to the head existing at this period of life; it is more than probable, that in this point of view, its beneficial effects far exceed any thing which art can supply." Many children have been destroyed by rashly and hastily suppressing it; yet, with proper judgment and discrimination, there is not so much danger in curing it as some would make us believe.

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* Dr Strack, who makes this statement, was in the habit of using the *viola tricolor* as a specific for the disease; and it is known that that medicine will produce in any person the peculiar odour of the urine abovementioned.

Impetigo Favosa.

(Porrigo Favosa of Willan.)

It is called Teigne granulée by the French, and differs very little from the preceding variety. If not often originally caused by pediculi, filth, and bad diet, it is at least materially aggravated thereby. It is more frequently confined to the scalp than I. larvalis; and from the thick irregular scabs which, in many instances, it exhibits, it is often mistaken for some of the forms of true Porrigo by those who boast of their successful treatment of Porrigo, and who are not very exact in their diagnosis of eruptive complaints.

On the scalp, the disease commences by separate large, soft, itching pustules, slightly inflamed at the base. On rupturing, they discharge a viscid fluid which mats the hairs together, and gradually concretes into irregular, brownish, semi-transparent scabs. These scabs are frequently observed *floating amongst the hair like fragments of dried mortar.* The scabs which adhere to the scalp increase in thickness from the fluid which continues to be discharged underneath, and are of a soft consistence. When the diseased secretions are allowed to accumulate, a disgusting odour is emitted from the parts, and myriads of lice are generated, increasing the uneasiness of the patient. The hair *is not changed in texture,* and *does not fall off, in this complaint.*

In many cases, as Willan states, there are among the pustules, small, red, smooth tumors, which desquamate at the top, and very gradually proceed to suppuration, in the same manner as scrofulous tubercles do on the arms, &c. Sometimes large abscesses form near the vertex, or behind the ear, probably originating in lymphatic glands situated there. As soon as they are broken, and begin to discharge freely, the pustular eruption and small ulcers on the other parts of the scalp disappear. The glands of the neck and parotids are apt to become swelled and painful.

On the face, the eruption appears with small pustules, clustered together about the lips and chin, with incessant itching. Thin scabs form, on the rupture of the pustules, which the child seldom fails to remove with his nails. The eruption may spread over a considerable part of the face, and appear on other parts of the body.

It is said that pustules of a similar character sometimes arise on the arms of those who nurse children affected with the complaint. However, it is generally supposed that it is not contagious; although Bateman and others are inclined to the contrary opinion.

Children, from six months to four years of age, are its most frequent subjects of attack. It is met with also in adults; and according to Alibert, cooks are very liable to it. It is not so common as the Impetigo larvalis; and is, usually, a manageable complaint.

Impetigo larvalis and I. favosa have been described, by some of the French dermologists, as false tineæ or porrigines, in contradistinction to the Porrigo scutulata, or furfurans, and P. lupinosa, which have been named the true tineæ. With these latter complaints, however, they have no affinity; and we have already stated that it is a misnomer to call them Porrigo. They are distinguished from the true porriginous eruptions by their non-contagious nature, *by not changing the texture of the hair, or producing alopecia*, and by their different elementary appearances and subsequent progress. The separation and altered appearance of the hair, in both forms of P. lupinosa, is, perhaps, their most characteristic feature. This is not met with in any of the other scabby eruptions of the scalp: and as respects furfuraceous Porrigo, where it is also invariably present, there is no likelihood of it (furfuraceous Porrigo) being confounded with P. lupinosa.

CHAPTER IV.

OF PORRIGO ORIGINATING IN THE ORGANS SECRETING AND PROTECTING THE HAIR, INCLUDING P. SCUTULATA AND P. FURFURANS;

(ANGLICE)

RINGWORM.

THE eruptions described by the older writers, under the terms Porrigo and Tinea, differ very materially in *appearance* from one another, as those conversant with the literature of dermatology will readily admit. For example, Lorry describes a form of disease under the term Porrigo, of a very different appearance from the diseases which he comprehends under the title Tinea.* Whether he was correct in thus separating diseases having several points of affinity, is another question: for reasons already stated, we think such a proceeding was unnatural and uncalled for. But, while we make this remark, we would observe, that Lorry showed his discrimination in making, as he did, a distinction between the diseases by him called Porrigo and Tinea. If we were to be influenced by the bold but ignorant assertions of some in the profession, we might be led to deny the utility of minute distinctions in cutaneous pathology. There are some who decry these distinctions as bewildering and unnecessary. But, undoubtedly, a real or essential difference, in nature, seat, and appearance, exists between the individuals composing the extensive family of skin diseases—a difference which is not explicable by the varying state of the constitution or general health, as those who decry minute nosological distinctions would have us to believe. It must chiefly result from the complex structure of the skin. As, therefore, there exists a great variety of eruptions, and as each genus runs a particular course, and generally requires a particular plan of treatment, the value of minute nosological distinctions, and correct diagnosis in this department of pathology must be obvious to every unprejudiced reader. It is very desirable, no doubt, to have the study of dermatology simplified; but we cannot look for this, till the true anatomy of the skin, and the exact seats of the diseases to which that tissue is subject, shall be established.

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* Under the term Tinea, Lorry, it will be recollected, described, perhaps not very satisfactorily, those forms of cutaneous disease, which we have described under the distinctive appellations, Porrigo lupinosa, and P. lupinosa conferta.

But we must keep to the subject more immediately before us.

The eruption described by Lorry, under the term Porrigo, corresponds to the Area* of Celsus, and to the disease which we are about to describe as the furfuraceous porrigo, known by well-informed non-professional people under the popular term Ringworm.

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* Vide Celsus de Med. lib. vi. c. 3.

From what I have seen, I am decidedly of opinion with Mr Plumbe, that the Porrigo furfurans and P. scutulata of Willan and Bateman are not two distinct diseases, but varieties merely of one and the same disease. In this country, they both receive the popular name of "Ringworm." We shall, therefore, describe them together as one disease; and we cannot do this better than in the words of Mr Plumbe, who has described ringworm of the scalp, as occurring in this country, more faithfully than perhaps any other author.

yes

"The attention," says Mr Plumbe, "is first attracted to the disease by the *falling off* of the hair of the part; there is little attendant itching, and no apparent fluid secretion on the spot. Sometimes, but not always, the patches are of a pretty regularly circular form, the margin being clearly defined, and exhibiting a line of scurf considerably thicker than that in the centre. In the centre of the spots the skin is scurfy, and the hair thinned and easily extracted by the finger and thumb. What remains of it is unhealthy in appearance, some hairs being thin and delicate, others being the remains or stumps of those which have been broken or dropped off. There is a *downy or towy-looking substance* just rising above, and mixing with the scurf, evidently formed by feeble attempts at the production of new hair. Two, three, or more of these spots, varying in dimensions, are usually discovered on examining the head more particularly; and when the hair has been removed by shaving, they exhibit a red and slightly inflamed appearance. Several others, in an incipient state, will be discovered in different parts. The latter may be known before the hair begins to fall off, when they exhibit nothing beyond the appearance of a small discolouration about the size of a

falling off

spangle; the hue is of a yellowish red, somewhat resembling the bran of the darker coloured wheat; others, a little larger, have decidedly assumed the ringed form.

"At the commencement of the disease, and for some time after, spots, evidently of the same nature as the affection of the scalp, may be seen on different parts of the body; but the former being usually protracted for a considerable time, these spots generally disappear before much improvement is effected on the scalp. To describe them more minutely would be to copy very nearly the account of the first form of Herpes circinatus of Bateman."*

Although Mr Plumbe despises (perhaps too much,) minuteness of distinction in cutaneous diseases, his descriptions are generally very accurate—evidently the result of sound observation and extensive experience. The above quotation contains an admirable delineation of the most striking features of "ringworm," as it usually occurs in this country; and its faithfulness will be at once recognised by those even the least conversant with the disease. Porrigo furfurans, as described above by Mr Plumbe, does not most frequently occur in adults, as is said to be the case with the form of the disease so called by Bateman: it is met with, almost invariably, in young subjects, from infancy to puberty.

Ringworm of the scalp is described by some of the French writers under the terms *teigne tondante* and *porrigo tonsoria;* but they are in error, in supposing that their *porrigo tonsoria* is the species described by Willan under the epithet *decalvans.* Any one who attentively reads their descriptions will, I think, agree with me in this opinion.

Willan and Bateman assert that P. furfurans and P.

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* Plumbe on Diseases of the Skin, 4th edit. p. 141.

scutulata begin with *achores;* but, with Mr Plumbe, we are inclined to think that these elementary lesions, when they do occur, are accidental, rather than primary or essential symptoms; being generally produced, subsequently, by irritating applications, or by the disease extending upwards, and affecting the sebaceous glands. In this latter way, achores (or, as the French call them, favi) are frequently produced, we believe, during the progress of the disease.

As the furfuraceous patches of ringworm enlarge, they not unfrequently exhibit a somewhat granular appearance, consisting, when examined through a lens, of minute vesicles, which either subside spontaneously, or burst, and their contents concrete into delicate incrustations or scales.

with vesicles

Ulcers, either consecutive to pustules, or as primary lesions, sometimes occur on the bald patches. They are generally small and quite superficial, and concealed by dry, thin, brownish crusts.

Ulcers

There is also sometimes a little serous fluid* discharged from the affected parts, which has occasionally been observed to glue the epidermic scales or scurf to the hair, giving the latter that peculiar silky appearance which Alibert has compared to asbestos. It is this particular appearance of the hair, which the author just mentioned describes under the term Teigne amiantacée. But, if we are correct in viewing it merely as an accidental occurrence in ringworm, it surely indicates an overweening love of minute subdivision to raise it to the rank of a separate species of Porrigo, as Alibert has done.

Ichor

In long-standing cases of ringworm, nearly the whole

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* M. Gallot, in describing a case of furfuraceous Porrigo, says:—"Il en suintait, *par une infinité de pores,* une sérosité un peu louche et légèrement visqueuse, qui, par son exsication, adherait aux cheveux, et formait des écailles furfuracées tres-petites." (Recherches sur la Teigne. p. 101.)

[illegible]

scalp is rendered bald, exhibiting only here and there a little towy-like hair; and the affected parts appear *mealy,* from being covered with scurf. This scurf consists partly of epidermic *debris,* and partly of squamous incrustations, formed by a secretion thrown out from the pilous cysts. In some cases the scurf seems to consist almost entirely of these latter thin incrustations, as any one may be convinced by attentive examination. They are seen surrounding the hairs at their exit from the skin; they resemble scales of bran, and are quite different in appearance from epidermic scurf.

Patches of ringworm sometimes appear, as Mr Plumbe has remarked, and as we ourselves have occasionally witnessed, on the neck, upper part of trunk and arms, as well as on the scalp. The disease, when occurring on these former places, is invariably, as has been already stated, very mild and manageable. It is less inveterate here than on the scalp, solely for this reason, we conceive, that the organs in which it originates are smaller or less developed there than in the scalp. Mr Plumbe, who attributes so much to the "mischievous influence" of the hairs, supposed that this milder form of the disease resulted from the absence of hairs at the parts affected.

The thick circular scabs, by many thought to be characteristic of Porrigo scutulata, are never met with, except as the effect of improper treatment, and inattention to cleanliness. Those who look upon such scabs as characteristic of Ringworm, have been misled by confounding it with the variety of Porrigo lupinosa described by Alibert under the term *Favus scutiforme,* and which we have called Porrigo lupinosa conferta.

From P. furfurans and P. scutulata generally commencing with furfuraceous patches, from which the hair falls off and becomes altered in texture, we are inclined to think that it would be proper to refer them both to the common term Porrigo furfurans, and expunge the term P. scutulata from the cutaneous nomenclature; or, *were it not a perplexing and generally a disadvantageous proceeding, changing the names of diseases, especially diseases of the skin, it would be advisable to merge the terms Porrigo scutulata and Porrigo furfurans, as descriptive of Ringworm, in the term Alopecia porriginosa.* This is the name given to Ringworm by Sauvages, and it seems to be peculiarly applicable and appropriate.

Alibert is inclined to consider P. scutulata, or, as he calls it, P. tonsoria, closely allied to P. furfurans. After alluding to M. Mahon's opinion of the affinity of P. scutulata with P. lupinosa, he remarks:—" Je ne saurais adopter cette opinion; je pense, au contraire, qu'elle se rapproche davantage de la porrigine furfuracée."*

PATHOLOGY OF RINGWORM.

We have now to discuss briefly the pathology of the disease. It would occupy too much time to comment upon the opinions of the humoral pathologists who ascribed the production of this, and most other diseases, to a supposed vice, or contaminating quality, in the circulating fluids. In the days of the Humoral Pathology, cause and effect were not so rigorously investigated as they have been subsequently: and hence from many of the opinions of the humoral pathologists having been found untenable, their pathology, *en masse,* was unjustly exploded by Hoffmann and his followers, and more recently, by Cullen and his school. But for some back there has been a reaction in favour of the exploded pathology;

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* Vide Monographie des Dermatoses, tom. i. p. 470.

and justly too, we think. That the circulating fluids, being vitiated, may give rise to cutaneous lesions, and lesions of other tissues, seems clearly established by the phenomena of scurvy; by the appearances observed in man and the lower animals when forced to partake of food of an improper quality; and by recent researches into the composition of the blood.

But I apprehend there are no facts to show that ringworm results from a vitiated state of the fluids. We need not, therefore, say more on this head.

Ringworm, according to Dr Mason Good, "appears to be seated under the cuticle in the mouths of the secernents of the rete mucosum, which secrete a material of a different colour from what is natural and healthy, and hence give a brown or reddish hue to the entire patch. This material affords no nutriment to the bulbs of the hair, and seems sometimes to be acrimonious; whence the hair, like the rete mucosum itself, changes its colour; and, with the change of colour, becomes thinner and weaker, and breaks off short at the base of the cuticle, sometimes at the roots below."* The above, like several other of Dr Good's *pathological* speculations, is not very satisfactory.

The separation and altered appearance of the hair in Ringworm (under which term we always include P. furfurans and P. scutulata) are sufficient, in our humble opinion, to lead to the belief that the parts nourishing and secreting the hair are those primarily affected in this disease. Mr Plumbe and others, however, take a different view of the matter. "Much light," says Mr P., "may be thrown on the pathology of this affection by reference to the known effects of the severe forms of *scarlatina*, as well as other diseases attended by a determination to the skin. In this disease (scarlatina), where excessive excitement of the part prevails through its course, its termination is attended by extensive exfoliation of the cuticle, and occasionally by the separation of the hair of the scalp; which two circumstances appear to depend on the same cause—the excessive action of the vessels of the cutis. The action of which those vessels partake which secrete the cuticle, produces a morbid increase of this structure; while the privation of blood which (during the continuation of the inflammatory state of the cutis) the structure secreting the hair sustains, cutting off its nourishment, it is observed to drop off, apparently by the roots, though, if examined, never having its rounded healthy bulbs. The same privation of nourishment which the structure secreting the hair suffers in the extended inflammation of scarlatina, is experienced in an aggravated degree in the smaller space which Ringworm commonly makes its appearance on; and hence it is that the hair separates, in this disease, without the formation of pustules." He adds, "Ringworm may be defined to be inflammation of a specific character, affecting the solid structure of the cutis." The hairs, in his opinion, exert a very mischievous influence on the disease; and to their presence he ascribes the formation of pustules.

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* Study of Medicine, v. 5th, p. 643.

The above explanation of the nature and phenomena of ringworm is too hypothetical, and at the same time *mechanical,* I apprehend. The supposition that a hyperemic state of the skin can be so circumscribed and permanent, and operate in such a way as by derivation to deprive the hair bulbs of their due *quantum* of blood, is not, when properly considered, supported by any recognized law of pathology. We are also of opinion, that the phenomena of scarlatina are altogether inapplicable to the elucidation of the disease in question. Indeed, it is very problematical whether the desquamation of the cuticle, after scarlatina, be the effect of the previously injected state of the cutis; *for it occasionally succeeds scarlatina anginosa unattended by cutaneous efflorescence.* Those who wish to find cases establishing this fact, may refer to a clinical lecture of Dr Graves', published in the London Medical Gazette for March last.

If Ringworm resulted from the pathological state of the skin, conjectured by Mr Plumbe, we ought to have separation of the hair in a large proportion of eruptions, besides those of a porriginous character. In chronic impetigo and chronic eczema, we have inflammation affecting the cutis pretty extensively. In these eruptions, therefore, according to the mechanical or derivative pathology of Mr Plumbe, we ought to have arrested nourishment and falling off of the hairs, as regularly and as extensively as in Porrigo. But, we need scarcely say, such is not the fact. This circumstance, I conceive, is sufficient of itself to disprove Mr Plumbe's view of the pathology of Ringworm.

That Ringworm consists primarily of subacute inflammation of a specific character, affecting the pilous cysts, and structure secreting the hair, we infer from the following circumstances:—

1st. The thin, bran-like, incrustations so frequently seen surrounding the roots of the hairs, and consisting evidently of a morbid secretion from the pilous cysts.

2d. The falling off of the hairs from affected parts, and the towy, unhealthy, appearance of those which remain.

3d. In pulling out the hairs from affected parts, we have sometimes brought the bulbs along with them; and these never presented their usual, or normal appearance.

The disposition of morbid action to spread from the parts, or tissues in which it originates, to those adjacent, is well known: and in Ringworm, as in other diseases, this extension of morbid action always occurs, to a greater or less extent. After the disease has continued for a considerable time, the whole thickness of the skin at affected parts is, undoubtedly, affected, or in a morbid state: but the arguments above adduced appear to me sufficient to authorize us to fix upon the pilous cysts and hair bulbs, as the parts primarily affected in Ringworm.

There seems to be something like a reciprocity of action, in health, between the vessels or organs secreting the cuticle, and those secreting the hair; as we see the cuticle thin and delicate, where the hairs are plentiful and strong, and *vice versa*. I have been rather inclined to believe that the epidermic scurf of ringworm might partly result from an overactive state of the vessels secreting the cuticle at affected parts, in consequence of the check given by the disease to the secretion of healthy hair. In other, and more extensive, diseased states of the system, we see one organ performing, as it were vicariously, the action of another.

But I must confess that I am not so much attached to the above notion as I was some time ago; and perhaps the phenomena of Porrigo decalvans are rather opposed to it.

DIAGNOSIS OF RINGWORM.

The appearance of ringworm is so characteristic that it is not very apt to be confounded with any other eruption. The falling off of the hairs, and the scurfiness of affected parts, are not met with, combined to the same extent, in any other eruption. We have already shown that it bears little resemblance in its external characters to Porrigo lupinosa conferta, which is primarily a pustular eruption; while ringworm is characterized at its onset by a falling off, and unhealthy appearance, of the hairs, and a slightly reddened, scurfy, state of the skin, at affected parts.

As Ringworm does not, in general, exhibit pustules at its commencement, it is more apt to be confounded with some of the truly squamous eruptions than with those of a pustular character. It is sometimes confounded with Pityriasis; and I apprehend that this mistake has been committed by Dr Burns. "*Pityriasis*," says he, "*is sometimes infectious. A variety of it appears like small red marks on the scalp. The circumference extends and continues red, while the centre becomes pale and scaly. It is accompanied with falling off of the hair.*" It is with great deference I venture to affirm, that this quotation is descriptive of ringworm, and not of pityriasis. Dr Burns, probably from supposing that the presence of pustules is requisite to constitute Porrigo, may have been led to make the above statement. *But whoever attentively observes the disease, will soon be convinced that ringworm is not primarily a pustular disease.*

It may be asked, what is Pityriasis? Its nature, it must be confessed, is certainly not at all satisfactorily explained to us in books; and I am inclined to think that very dissimilar eruptions are indiscriminately referred to this term. It is generally described as a trifling scaly eruption. One of its forms, under the name of Dandriff, is familiar to nurses, from the frequency of its occurrence on the scalps of children.

In children, the secretion of the sebaceous follicles is sometimes unusually copious, and it concretes upon the skin around the roots of the hair in the form of thin, bran-like, scales. If I am not mistaken, this preternatural secretion of sebaceous matter may exist without any other affection of the skin. It is not unfrequently seen in a rather aggravated degree, (especially in filthily kept children,) forming laminated, unctuous, crusts, of a dirty white or yellowish hue, of variable extent and thickness —sometimes forming a sebaceous cake, a line or two in thickness, lying over the greater part of superior surface of scalp.* When this *sebacorrhœa* is moderate, and when the matter hardens into *squamulæ* round the roots of the hair, it would very likely be set down, by one not acquainted with its nature, as pityriasis: and, I suspect, such is the disease (if it may be called disease) described as pityriasis by some authors.

The Pityriasis simplex of Willan, including Dandriff, appears to me to be merely a milder form of psoriasis; just as I take psoriasis to be a milder form of lepra. In none of these scaly diseases does the hair speedily assume a stunted and parched appearance, or fall off, as in ringworm; no great difficulty, therefore, we should think, will be experienced in distinguishing between them and ringworm.

Eruptions of an eczematous or vesicular character are sometimes seated on the scalp, producing a scurfiness which has occasionally, we have reason to suspect, been mistaken for ringworm. But by attending to the elementary lesions, &c., of such eruptions, we shall seldom have any difficulty in forming a correct diagnosis.

PORRIGO DECALVANS.

The form of porrigo, called by Willan and Bateman decalvans, presents patches usually of a circular shape, completely deprived of hair—the scalp, at affected parts, appearing of natural colour, *smooth* and *shining*. There is no *visible* cutaneous lesion: the hairs appear to drop off from their roots. Bateman was inclined to believe that minute achores were seated at the roots of the hair. But this opinion I have ascertained to be incorrect. The bald patches sometimes attain a considerable size; but they commonly appear of about the size of a shilling or a half-crown-piece. Sometimes, there is but a single patch; in other cases, there are three, four, or more, on the same subject, as we ourselves have occasionally observed.

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* This is the "croute de lait," or "crasse laiteuse," of some French writers.

Mr Plumbe thinks that P. decalvans cannot be deemed, strictly speaking, a disease. However, from its appearing in schools and families, where the other forms of Porrigo prevail, we are warranted in viewing it as allied to them.

From the phenomena of the affection, one would be led to suppose, that the principle which produced it acted upon the organs secreting the hair in such a manner as to produce a temporary atrophied, or inactive state of them. But its true nature, it must be confessed, is very much in the dark. We see it often continue for a very long time, and afterwards, either spontaneously, or during the application of stimulant liniments, &c., get well—the hair sprouting up, strong and healthy-like, over the previously bald patches.

CHAPTER V.

CAUSES OF PORRIGO.

PORRIGO, in all its forms, is generally a local affection no of the skin, almost always appearing independent of, and unconnected with, any constitutional disturbance, or remote irritation; unlike Impetigo larvalis, and Impetigo favosa, which very frequently have a constitutional origin, and may be said, to use the words of the laborious Dr Craigie, " to be merely a vicarious action induced by the morbid irritation excited in the gastro-enteric membrane and its follicles,"* and, we may add, in the gums, &c., from teething.

Porrigo is a disease to which, in some form or other, persons of all ages are subject; but it attacks chiefly the young, and from the frequency of its occurrence, it is justly deemed the bane of youth. The form of it most frequently met with in this country, is the furfuraceous, or true ringworm of the scalp. In France, judging from the Hospital Reports, P. lupinosa seems to be the most common form. P. decalvans is the least frequent, and indeed in this country is comparatively seldom seen. commonly

Although all the species may arise spontaneously in those who are badly fed, and inattentive to cleanliness, yet it may be safely affirmed that it is by contagion they are most commonly produced. And it is a well-established fact, that all the forms which we have above described may be produced from one and the same contagious principle. It has been frequently observed that when a case of Porrigo appears in a family, if rigid seclusion of the infected subject be not immediately adopted, the disease spreads, and not unfrequently in other forms than the one first developed. At schools, boys frequently contract the disease by wearing the caps of others affected with it; and in boarding-schools, it is sometimes communicated to several of the pupils by means of combs and towels, before the contaminating source is discovered.

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* Craigie's Practice of Physic.

However clearly the contagious nature of the different forms of Porrigo is established, it is equally certain that the disease is not communicable to all subjects; and that for its transmission by contagion, certain conditions, as respects age, temperament, and state of the integuments, are requisite. We have seen ringworm attacking two or three subjects in the same family, almost at the same time, when the occurrence of the disease could not be traced to contagion. We have been led to believe that the disease, under these circumstances, originates from some article of food being of a bad quality.

From what we have observed, we are inclined to think that Porrigo is not so contagious as many suppose. We have more than once endeavoured to contract the disease, and hitherto without success. But probably some may say, that had I been more anxious to contract the disease, I might have been more successful in the experiment.

CHAPTER VI.

TREATMENT OF PORRIGO.

There are few eruptive diseases more inveterate or difficult of cure than the different forms of true Porrigo. If there be any gentlemen in the profession who boast of unfailing success, or of very expeditious cures, we would humbly insinuate a suspicion that they rank diseases under the term Porrigo, not, strictly speaking, allied to it. Let such separate the comparatively easily cured cases of impetiginous eruptions* which attack the scalp, from their list of true porriginous cases, and I rather think that their success will not then appear so remarkable.

The intractableness of these eruptions to all the modes of treatment hitherto pursued, has proved a source of no mean revenue to quacks, who, by their unfounded pretensions, thrive upon the credulous public. Taking the non-professional and professional means of cure together, a greater number of supposed remedies for Porrigo might be enumerated, than for almost any other group of diseases. But such a task, however amusing it might be to some, would not prove either very acceptable or profitable to the majority of our readers.

In the treatment of the different forms of Porrigo, too little regard has hitherto been paid to their pathology.

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* When we have deemed it *advisable* to heal up these impetiginous eruptions of the scalp, viz., *impetigo larvalis* and impetigo favosa, we have, almost invariably, succeeded with an ointment, composed of equal parts of citrine ointment, tar ointment, and ol. laurini, or simple cerate. Under this application, and at the same time by keeping the affected parts clean and as free of scabs as possible, we have no doubt but that others will find these eruptions equally manageable.

Had our predecessors been more anxious to establish the seat and nature of these eruptions, a little reflection would, perhaps, have enabled them to derive more success from the means of cure which they already possessed, and they would have been more profitably employed than in empirically endeavouring to discover new remedies, or to discover one which would be applicable to all cases. It is certain, that, by a judicious selection of the remedies already in use, much good may be done; and it is equally certain, that, from a blind or indiscriminate employment of them, much harm may accrue.

As the different forms of Porrigo vary in their seat, &c., it is not to be expected that the same plan of treatment will be successful in all cases. Those who attempt to cure all cases by one particular plan of treatment, exhibit, we think, a culpable ignorance of the nature of the disease, and their success can never be great.

Much has been said, by ancient and modern writers, regarding the inexpediency and danger of speedily curing the eruptive diseases of the scalp. The suggestions of practical men are often set at nought by those of a theoretical turn, and the maxim, that it is dangerous to cure some eruptions, has been scouted by many; but it is too well attested by many melancholy facts, to be made light of. The eruptions dependent on constitutional derangement, and intended to obviate more serious diseases, are those which cannot, with safety in general, be suddenly suppressed. The eruptions of this nature, which affect the scalp, are principally those to which we have given the names of Impetigo larvalis and I. favosa, (Porrigo larv. and P. fav. of Willan.) As the different forms of true Porrigo seldom arise from constitutional derangement, being generally local in their origin, as we observed above, it is seldom dangerous to cure them *quamprimum*. It is true, that after they have continued for a long time, and after the system has become as it were habituated to them, there may be a danger in suddenly repelling them, just as we see bad consequences occasionally follow the drying up of an old ulcer or issue. Alibert mentions several cases where troublesome symptoms supervened on the sudden removal of P. lupinosa. Probably in some of such cases the disappearance of the disease may be a consequence, and not a cause, of the subsequent alarming symptoms.

After taking all circumstances into consideration, we are warranted, I think, in affirming that we need seldom hesitate as to the propriety of attempting to cure almost every case of Porrigo as speedily as possible: in general, we will find the task tedious and difficult enough.

Attention to cleanliness forms a most important item of the treatment of Porrigo; but it is one which we find great difficulty in rigidly enforcing, especially amongst the lower orders. It is also indispensably necessary to have the scabs removed, in order to allow the remedies adopted to exert their full action on the disease. In this point of view, as well as to mitigate the irritation of the disease, poultices are of great service. Indeed, many cases have been cured by such applications alone. An author states, "that a gentlewoman, whose son was affected with Porrigo, had tried many applications in vain, and indeed had received no benefit, until she was recommended to cover the whole head with a cataplasm composed of oatmeal, water, and butter, which soon succeeded in curing the disease and restoring the healthy state of the scalp." It is principally in those cases where the scabs are thick and adherent, and where the scalp is rather tense and inflamed, that poultices are required. After the scabs have been removed, frequent ablution with tepid water must be practised to prevent their reformation.

Evulsion of the hair has formed a part, and a principal part, of the cure of Porrigo from a very early period. The evulsion was formerly effected by means of the *calotte,* or pitch cap; a practice, the very recital of the tortures which it inflicted is enough to make one shudder. Some still believe that it is necessary to have the hairs removed by their roots: but Willan and Bateman affirm that evulsion causes infinitely more harm than good; and they deem it sufficient to have the hairs kept short. When hairs are lying loose in the skin, or when they appear shriveled and parched, and can be removed without pain, evulsion, we think, may very properly be had recourse to. But on the other hand, we think, the practice is reprehensible and will prove detrimental, when it causes pain.

It has been said that neither Porrigo lupinosa nor furfuraceous Porrigo attacks bald-headed persons. We cannot speak positively as to the accuracy of this assertion; but we should think that it is correct. We find in old people, whose teeth have dropped out, the alveolar processes erased or absorbed; and, we believe, a corresponding atrophy, or absorption of the sebaceous glands, and pilous cysts and bulbs, will be found in those who have become bald-headed: and hence, a satisfactory explanation of the non-occurrence of Porrigo in such individuals.

It has been further affirmed, by the advocates of evulsion, that if all the hairs of the head, during Porrigo, could be plucked out, the disease would be checked. Now this, we maintain, is incorrect. The disease is not seated in the hairs themselves, but in the organs secreting and protecting them; and till once the parts primarily diseased are restored to a healthy state, what great benefit can accrue from evulsion of the hairs?

Mr Plumbe, who is a strenuous advocate for the removal of the hairs by their roots, employs small pincers to pluck out the diseased hairs.* Others, with the same view, employ ointments, the chief ingredients of which are lime and potash. But we doubt whether these depilatory ointments, as they are called, act merely by destroying the hair. The success of the brothers Mahon, at the Hotel Dieu, who restrict themselves to such applications, would lead one to suspect that they exert a modifying influence on the cutaneous vessels and the structure which produces the hair.

As respects the management of the hair, we would recommend, in place of indiscriminate evulsion, shaving the head from time to time when the scalp is not very tender, and removing such of the hairs as are lying loose in the skin; and when shaving the head is impracticable, the hair should be cut short by means of scissors.

In the incipient stages of ringworm, (P. furfurans and P. scutulata,) Mr Plumbe strongly recommends smearing the affected parts with strong sulphuric acid, allowing it to remain on for a minute or two, and then washing it clean off with tepid water. "It produces in a few hours," he says, "a tolerably copious exudation of coagulable lymph, which forms a scab more or less thick. This falls off in a day or two, leaving a bald reddened spot, from which healthy hairs speedily spring forth." This application, Mr Plumbe observes, may be resorted to with a certainty of eradicating the disease in almost all cases where the health is good, and where the disorder preserves the chronic circular form.

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* This practice has long been pursued at the Hospital de S. Gallicano, Rome. "This establishment," says Dr Mosely, of anti-vaccine notoriety, "is chiefly for the reception of people afflicted with tinea or scalled head, which is a dreadful disorder in and about Rome."

"The manner of curing this disorder there is curious, but extremely coarse. Their operators first cut off the hair as short as they can, then pluck up by the roots, with a pair of pincers, the remainder, a little at a time, as the patient can bear the torture, until they have pulled out all the hair. They then scarify the head slightly with a razor or scalpel, and let out the blood more or less as they find occasion. They finish the cure, after this, with a cap besmeared with oil."

The same treatment would, we think, be fully as useful in the early stages of P. lupinosa.

Where there is much irritability of the scalp, and active pustulation going on, we must endeavour to modify the disease by poultices, slightly astringent lotions, or some desiccative ointment, as oxid of zinc, superacetate of lead, or cocculus indicus, ointments. In P. lupinosa, after the scabs have been softened and removed, we have found the following ointment very serviceable:—

℞ Hydrarg. oxid. rubri . .	gr. x vel x x
Butyri recentis	℥i
	M. opt.

This ointment seems to act very beneficially, and much in the same way as in ophthalmia tarsi.

When Porrigo commences with pustules, Mr Plumbe recommends these to be punctured, and their contents pressed out; after which, the affected parts are to be dusted with powdered sulphate of copper. The copper is to be allowed to remain on the skin a minute or two, and is then to be washed off completely. He has found this practice very effectual in many cases.

In the furfuraceous Porrigo, or ringworm, a solution of the nitrate of silver, or lotions containing sulphuret of potash, liq. potassæ, or tincture of muriate of iron, sometimes answer very well. Of late we have been in the habit of using an ointment, consisting of a drachm of subnitrate of Bismuth, mixed up with an ounce of lard or simple cerate. We order a little of it to be applied night and morning, having the parts well washed before each application. In our hands this ointment has always speedily produced an amelioration of the disease; and we could give several cases where it has effected a very satisfactory cure. I will not pretend to say how it acts beneficially in ringworm; I simply state the fact, and would recommend other practitioners to give it a trial. If it succeed according to my expectation, it will be found a valuable addition to our curative resources for a hitherto much-dreaded and unmanageable eruption.

In the more inveterate forms of Porrigo, deutioduret of mercury, ioduret of sulphur, and iodide of carbon, have of late been highly recommended, and are deserving of further trial. I am inclined to think, however, that their virtues have been over-rated; at least I have derived little or no benefit from them in any of the cases in which I have employed them.

The remedy which Alibert has found most successful, in all the forms of Porrigo, is an ointment consisting of equal parts of sulphur and charcoal. The following ointment was in great repute, at one time, for the scabby forms of Porrigo, and we ourselves have seen it successful in several cases of common P. lupinosa and P. lup. conferta:—

℞ Ol. Laurini, ...	℥iss
Sulphur. viv.	ʒss
Camphor.	gr. x
	M. ft. ung.

A little of this was applied night and morning, the affected parts being well washed previous to each application.

It may be proper to remark here, that we should never give up the use of a remedy because it does not *immediately* produce decided benefit; for often the most successful remedies effect a cure but tardily.

MM. Mahon, at the Hotel Dieu, Paris, in the treatment of the different forms of Porrigo, make use of three depilatory powders, the composition of which they keep secret, but which have been found by analysis to consist of weak (nearly carbonated) quicklime, subcarbonate of potash, and charcoal—the proportions of the active ingredients, lime and potash, varying in the different powders.

After having cut the hairs about two inches from their roots, and thoroughly cleaned the scalp, they commence by rubbing, every second day, a little of the depilatory powder No. 1, made into an ointment with lard, over affected parts, using a fine toothed comb, dipped in oil, on the intervening days, to remove the hairs which are loosened. A little of the powder No. 2 is sprinkled, once a week, amongst the hairs, after the above treatment has been pursued for some time. After two months or so, they have recourse to powder No. 3, which is applied likewise in form of ointment, and used in same manner as No. 1, for a fortnight or a month—after this, it is applied only twice a-week until the complaint disappears.

The above plan of treatment is not attended with pain, and can boast of thousands of cures; but, like the treatment of regular practitioners, it is not always successful, nor does it seem to be more expeditious. The time taken to cure the disease by MM. Mahon, varies from four to six months and upwards.

Dr A. T. Thomson says he has seen a lotion composed of one part of liq. potassæ, two parts of alcohol, and two of water, nearly as effectual.

In Porrigo decalvans we must attempt to excite the growth of hair, by the diligent employment of tincture of cantharides, flour of mustard, turpentine, &c., externally. Although no *visible* cutaneous lesion exists in this form of Porrigo, it is generally very difficult to get the hair to re-appear on the bald patches. An ointment containing finely powdered red cinchona bark, in the proportion of a drachm to an ounce of any mild cerate, sometimes succeeds, when all other applications have proved unavailing.

It has been occasionally observed in Porrigo decalvans, when the disease begins to yield, that the affected parts assume an appearance somewhat analogous to what is seen in furfuraceous Porrigo—the previously smooth, bald, patches become scurfy, and the hairs which first sprout forth are wooly, thin, and delicate. In such cases, Porrigo decalvans may be said to have terminated in Porrigo furfurans. Lorry mentions two or three cases of this kind.

We have hitherto said nothing of constitutional treatment; not that we think such treatment is never required, but because common sense would suggest it when the constitution or general health is obviously, or suspected to be, at fault. Change of diet and alterative medicines are sometimes very serviceable, in addition to local treatment. But as we observed above, true porriginous eruptions seldom result from constitutional derangement, and therefore we are inclined to think, that general or constitutional remedies are but comparatively seldom necessary in the early stages of these diseases.

Porrigo sometimes results from filth and starvation—the remedy, in such cases, is too obvious to be mentioned; but we may here briefly notice a case, recorded by Alibert, of a houseless, half-starved, miserable, being, admitted into St Louis Hospital, covered from head to foot with Porrigo lupinosa, who very speedily recovered under liberal diet and comfortable lodging, without any medical treatment.

In conclusion, we may observe, that occasionally, notwithstanding the most assiduous and best directed remedial efforts, porriginous eruptions persist during a series of years—from infancy to puberty and upwards, continuing till some unseen change occurs in the general system or intimate structure of the organs, when they spontaneously disappear—forcibly showing how unavailing and impotent are our efforts when unseconded by Nature's co-operation!

THE END.